

Appl. No. 10/058,324
Amendment dated
Reply to Office Action of June 4, 2003

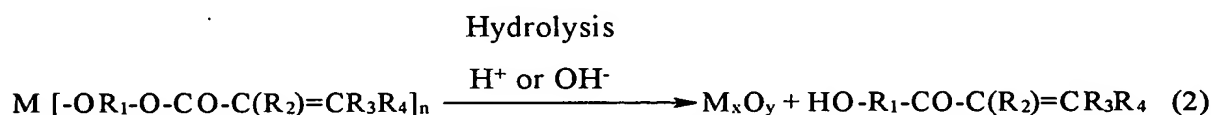
Amendments to the Specification:

Please replace the paragraph beginning on page 2, line 7, with the following rewritten paragraph:

It is an object of the present application to provide high refractive index and low birefringence organic/inorganic hybrid materials that are prepared ~~by~~ from solventless metal aliphatic acryl alkoxides. The metal aliphatic acryl alkoxides are synthesized first. Then, the metal aliphatic acryl alkoxides are ~~underwent hydrolysis~~ hydrolyzed to form nanoparticle metal ~~oxides~~ oxide dispersed acrylates. They can be free radical polymerized (via thermal or photo) into high refractive index, low birefringence, high mechanical strength and low moisture absorption metal oxide dispersed aliphatic polyacrylates.

Please replace the two paragraphs beginning on page 4, line 4, with the following rewritten paragraphs:

In the second step, the metal acryl alkoxides ~~are underwent~~ undergo acid or base catalyzed hydrolysis to form nanoparticle metal oxides dispersed in acrylate monomers. The hydrolysis reaction is shown in ~~the~~ equation (2).



In ~~suit~~ situ metal oxide nanoparticle formation in acrylate matrix formation

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The equation (2) is a hydrolysis reaction, which is carried out in the acid; or base catalyzed condition to form metal oxide nanoparticles ~~in suit~~ in situ in the acrylate monomer at room temperature. The catalysts can be inorganic or organic based catalysts as mentioned in the reaction (1). The formation of metal oxide particles is through the chemical reaction, so they can be nano size and dispersed evenly in the acrylate matrix. The nano size of ~~particle~~ the particles is important, so the material can be transparent in visible light with high light transmission,